

Xiphigorgia juncea Horn.*Gorgonia juncea* Pallas, Elench. Zoop. 1766, p. 180.

Ellis, Nat. Hist. Zooph. 1786, p. 81.

Lamarck, Anim. Sans. Vert. 1816, p. 320.

Lamouroux, Polyp. Flex. 1816, p. 419.

Dana, Zoop. U. S. Exp. 1848, p. 664.

Xiphigorgia setacea Edwards, Coralliaires, 1857, p. 172.*Xiphigorgia setacea* Horn.*Gorgonia setacea* Pallas op. cit. p. 182.

Lamouroux, op. cit. p. 421.

Lamarck, op. cit. Deux. Edit. ii. p. 502.

Pterogorgia setacea Dana, op. cit. p. 653.*Xiphigorgia simplex* Horn.*Pterogorgia simplex* Gorg. Comptes Rendus, xli. p. 13.

Descriptions of Reptiles from Tropical America and Asia.

BY E. D. COPE.

SIDEROLAMPRUS Cope.

Scales smooth, toes 5—5. Palatine teeth none. Lower eyelid covered with large scales. Nostril in the centre of an elongate nasal plate. Two pairs of supranasals, contiguous. Internasal present, fronto-nasals absent. Frontal in contact with the interparietal, thus separating the fronto-parietals. Parietals small, widely separated by the broad occipital. Tail cylindrical.

This genus of scinks is most nearly allied to *Eumeces* and *Otosaurus*, but may be distinguished by the presence of two pairs of supranasals, and absence of fronto-nasal.

S. ENNEAGRAMMUS Cope.

Vertical plate elongate, broadest posteriorly, the lateral borders very concave. Palpebral plates five. Tail longer than the head and body. Color above glossy black, shading into ultramarine blue about the middle of the tail. A delicate line of the latter color occupies the centre of each of the central nine rows of dorsal scales. These are all discontinued upon the occiput, except the external one upon each side, which passes round the side of the head and meets its fellow upon the muzzle. The palpebral and supranasal plates are suffused with blue, and delicately bordered with black. Beneath dirty white, shaded with blue upon the abdomen and tail. Length of head and body to vent, 15 lines; of tail (mutilated) 16 lines.

This beautiful little scink was discovered by Sr. Rafael M. De Oca, in the vicinity of Jalapa, Mexico, and obtained for the Academy by Dr. Thomas B. Wilson.

TROPIDONOTUS COMPSOLEMUS Cope.

Scales in nineteen longitudinal rows, all keeled. Head distinct, short, deep; profile anteriorly descending. Rostral plate twice as broad as high. Pre-frontals subtriangular; loreal longer than high. One rather narrow preocular; postoculars three, the lowest very small. Vertical and superciliaries elongate; lateral borders of the former scarcely converging; the latter narrow. Superior labials eight, fourth and fifth entering the orbit. Inferior labials nine. Tail slender, slightly compressed at the base, three-tenths of the total length. Gastrosteges 126; a divided anal; urosteges 67. Total length 16 inches; of tail 3 in. 6 lin.

Coloration. Above blackish brown, darkest anteriorly. Very indistinct, pale transverse bands are apparent. They are irregularly oblique, and separated by intervals of two or three scales wide. Superior and inferior labials more or less completely margined anteriorly with yellow; genieal and gular plates spotted irregularly with the same. General color beneath a peculiar stone brown. A darker shade occupies the centres of the gastrosteges as far as the vent. This is almost excluded anteriorly by a central series of transversely elliptical yellow spots, one near the anterior border of each gastrostege. These become narrower, and broken, and upon the posterior two-thirds of the belly are almost lost. There is a very indistinct row of smaller spots upon each side of it anteriorly.

Habitat.? Key West. Mus. Comparative Zoology, Cambridge.

This species should be compared with *T. sipedon*, *T. celseno* and *T. validus*. It differs from the first in the number of rows of scales, and from all three in the form of the muzzle and coloration of the lower surface.

THAMNOPHIS SCALARIS Cope.

Head narrow, elevated, the profile sloping in front, muzzle obtuse. General form moderately slender, the tail a little less than one fourth the total length. Superciliary and vertical plates elongate, the lateral borders of the latter straight and convergent. Occipitals elongate. Loreal plate higher than long; one pre-, three postoculars. Superior labials eight, fourth and fifth entering the orbit. Inferior labials ten. Anterior genieals longer than posterior. Scales in nineteen rows, not emarginate, the external smooth. Gastrosteges 143; an entire anal; urosteges 59 pair.

Coloration. Beneath, and upon the first row of scales, dark, ashy olivaceous, the latter frequently black at their bases. Second and half the third row of scales a little paler. The vertebral, and the borders of one row on each side of it, yellowish. The color of the remainder of the upper surface is brown, anteriorly shaded with olivaceous. This is crossed from the lateral to the dorsal stripe on each side, by vertical bars, black, or deep brown bordered with black, numbering from the head to the origin of the tail, about sixty. There is a pair of large spots just behind the occipital plates, and one involving the temporals and the whole of the occipitals, its anterior border trilobate and produced upon the vertical and superciliaries. A short yellowish vitta extending from the posterior angle of the former plate along the occipital suture, represents a confluent pair of occipital spots.

Habitat. Jalapa, Mexico, found by Sr. R. M. De Oca. Mus. Academy. Presented by Thos. B. Wilson, M. D.

ARIZONA JANI Cope.

Head not very distinct, tapering. Rostral plate rounded, presenting an obtuse angle between the prefrontals. Post-frontals bent upon the sides of the head. Vertical longer than broad, the lateral borders much converging, posterior angle obtuse. Occipitals longer than vertical, subdivided as in *Pityophis* sp. Nostril between the nasals; loreal plate longer than high. One preocular not reaching the vertical, three postoculars. Superior labials eight, fourth and fifth entering the orbit, inferior labials twelve, sixth largest. Post-genieals shorter than pre-genieals. Scales of the body in twenty-seven or nine rows, the central thirteen keeled. Tail short.

Coloration. Above, a pale yellowish brown, browner on the crown and muzzle. A series of quadrate dorsal spots extends throughout the whole length, involving from thirteen to seventeen medial rows. Anteriorly they are separated by spaces eight scales wide, but these intervals diminish posteriorly. There is a lateral series of spots which alternate with those of the dorsal row, and are sometimes confluent with others, which form a series along the tips of the gastrosteges posteriorly. Anteriorly the dorsal intervals are divided by a transverse series of three small spots, which are probably sometimes confluent. These markings are all black anteriorly; posteriorly, they are shaded with

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brown. Belly dirty yellowish. The length and number of gastrosteges of our specimen cannot be given, owing to its mutilated condition. Urosteges 58, the tail terminating in a rather long corneous appendage.

Habitat. Buena Vista, Mexico. Lieut. Couch. Mus. Smithsonian.

This genus is intermediate in structure between Rhinechis "Coluber" *Gthr.* and Pityophis. It has not the four postfrontals of the last, nor the divided anal shield of the first two. In form, the rostral plate is intermediate between those of "Coluber" and Pityophis. The present species is nearly allied to the *A. pleurosticta* Cope, (*Elaphis pleurostictus* Dum. & Bibr.) of Uruguay. Named in honor of Prof. Jan, of Milan, a distinguished herpetologist.

DROMICUS TEMPORALIS Cope.

Scales in seventeen longitudinal rows. Head distinct, eyes small, anterior; muzzle short. Mouth very inferior. Rostral plate prominent, but barely visible from above: prefrontals small: vertical broad, presenting an obtuse angle anteriorly, one less than a right angle posteriorly, the superciliary borders nearly parallel. Occipitals well developed, each bounded by three large, and two small temporals. Postnasal vertical, crescentic; loreal confluent with the preocular, (probably not a constant character); postoculars two on one side, one on the other. Superior labials seven, third and fourth entering the orbit. Inferior labials eight, fifth largest, seventh twice the size of the sixth. genae equal. Gastrosteges 167, a divided anal; (tail mutilated). Length of head and body seventeen inches.

Coloration. Above, chocolate brown. A narrow yellow band with a broad blackish superior border extends from the throat to the vent, along the suture of the first and second rows of scales. The greater part of the first row, and the ends of the gastrosteges are involved in a blackish plumbeous band which extends from the throat to the vent: the central third of each scale of the fifth row on each side is brownish-yellow, the upper and lower thirds blackish; thus is formed a narrow black-edged band, which extends from the throat to the end of the tail. A yellow band extends from the superior border of the first upper labial, crosses the lower halves of the posterior labials, and widening, extends upwards upon the temples and neck, forming apparently the rudiments of a collar. Throat and belly saffron yellow.

Habitat. Probably Cuba.

Mus. Comparative Zoology, Cambridge, Mass.

AMASTRIDIDIUM Cope.

Body cylindrical, elongate; tail moderate, slender. Head distinct, broad, short, tapering rather abruptly. Superior maxillary teeth in a continuous series, the last abruptly the longest, not grooved. Pupil round. Top of head flat, separated on the muzzle from the sides, by an angle. Superciliaries prominent. One anterior, two postoculars. Loreal none. Nasals large, one or two, the nostril situated in the centre of the anterior. Scales on the posterior parts of the body, slightly keeled. Anal and subcaudal scutella divided.

This genus differs from *Coronella Laur.* in the short, depressed, angular head, and the absence of the loreal plate. The form of the head somewhat resembles *Xenodon*, but the form of the body, the plating and dentition, are different.

A. VELIFERUM Cope.

Scales in seventeen longitudinal rows, smooth on the anterior half of the body: posteriorly a few dorsal rows with faint keels, becoming stronger toward the tail, and extending on all the scales near the anal region. Here they are tuberculous, as in *Aspidura trachyprocta nobis*. Tail nearly one-third the total length. Occipital plates large, almost reaching the labials in front, posteriorly acuminate; vertical long, acute behind; superciliaries large, promi-

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ment, broad behind. Postfrontals small, their anterior outline regularly curved; prefrontals small, quadrangular. Rostral nearly rectangular, not appearing on the surface of the head. Postnasal high, its apex visible from above, opposite the suture between the pre- and postfrontals. Superior labials seven, eye resting on third and fourth. Inferior labials nine. Genecials two pair, the anterior shorter.

Total length 14 in. 11 lin. tail 4 in. 10 l. Gastrosteges 127, urosteges 85.

Coloration. Above and below, reddish-brown, paler in the centres of the gastrosteges. Every fourth scale of the fifth row on each side, pale, the adjacent scales on the fourth and sixth rows, generally darker. Top of the head much lighter, varied anteriorly; palest behind the eye and above the labials. The latter are dark with a few light spots.

Habitat. Cocuyas de Veraguas, N. Grenada. Mr. R. W. Mitchell.

Mus. Academy Natural Sciences.

The colors of this species are quite similar to those of *Tantilla reticulata nob.* from the same locality. Its physiognomie is very unprepossessing.

SCOLECOPHIS FUMICEPS Cope.

Head not distinct from the body. Scales in fifteen rows. Frontal plates broad and short; vertical broad, presenting an obtuse angle anteriorly, an acute one posteriorly, its occipital suture longer than its superciliary. Occipitals large, as long as postfrontals and vertical together. Prenasal large; postnasal prolonged to the single preocular, excluding the loreal. Postoculars two. Superior labials seven, third and fourth entering the orbit, seventh largest. Temporals, two large and two small. Inferior labials six, fourth the largest. Breadth of anterior genecials equal to half their length, which is greater than that of the posterior pair. Gastrosteges 132; a divided anal; urosteges 42.

Total length 5 inches; tail 1 in. 10 lin.

Coloration. Above, uniform pale brown, shading into dirty white beneath. The top of the head, including the oculars and temporals, and for four scales back of the occipitals, blackish-brown. Rostral, prefrontals and upper labials, pale brownish.

Habitat. Probably Cuba.

Mus. Comparative Zoology, Cambridge, Mass.

Fam. ADENOMIDÆ.

Opisthoylossa platydaetyla without maxillary teeth, with perfectly developed ear, parotid glands, dilated apophyses of sacral vertebra, and palmate feet.

ADENOMUS Cope.

Hylæform. Head broad, short. Parotids above the shoulder, long and narrow; skin rough. Vomerine teeth none. Tongue elongate, oval, almost cylindrical anteriorly, posteriorly entire, and free for about two-fifths its length. Tympanum indistinct. Fingers very slightly webbed, the palettes of moderate size. A subgular vocal sac.

A. BADIOFLAVUS Cope.

Muzzle short, elevated; canthus rostralis concave. Nostril oval, lateral. Eyes very large, transverse diameter of the eyelids greater than that of the ossa frontalia. Tympanum inconspicuous, surmounted by small tubercles. Skin of the whole upper surface tuberculous, and especially that of the scapular protuberance, and a short lateral fold. No gular or pectoral fold; tarsus half the length of the tibia, which is but little longer than the fourth phalanx. Two tubercles on the metatarsus, one on the metacarpus. First finger half the length of the fourth.

Coloration. Above, ground color, fulvous. The sides as far as the eye, a spot above the anterior canthus of the latter, one upon each eyelid, a band beginning upon the occiput and bifurcating between the parotids, and a large chevron-shaped band upon the sacral and iliac regions, ferruginous or bay. A

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broad band of the same bordered with yellow, crosses the closed femora-tibiæ and tarsi. A similar one crosses the fore-arm. Upper lip varied with yellow; a band of the same, extending from the angle of the mouth to the shoulder. Under surface of the belly and extremities, saffron yellow, with some irregular medial spots of an orange bay color.

Length from muzzle to end of coccyx 1 inch, $2\frac{1}{2}$ lines. Femur from coccyx $6\frac{1}{2}$ lines, tibia nearly 7 lines.

Habitat. Ceylon. Mus. Acad. Nat. Sciences. From Mr. H. Cuming, in ex.

PHYLLOBATES TRUNCATUS Cope.

Skin above and below smooth, except some faint granulations upon the posterior part of the abdomen. Tongue small, linear, entire. Thumb nearly as long as the middle digit. Front and canthus rostralis convex. Muzzle concave truncate, elevated; nostrils lateral. Tympanum very near the eye, less than half its size.

Coloration. Upper and lower surfaces of head, body and extremities a dark ferruginous maroon. A pale, curved line upon each side; beneath this another one, which unites with its fellow upon the anterior part of the abdomen. From this point of junction a medial band takes its rise, and bifurcates posteriorly. A pair of parallel lines upon the throat, which unite anteriorly, following the curve of the mandible. Extremities sparsely and irregularly spotted with the same faint shade.

Habitat.? New Grenada. Mus. Academy. From the Philadelphia Museum. in exchange.

The species of this genus hitherto described, are *P. bicolor* *Bibron*, from Cuba, *P. melanorrhinus* *Berthold*, from New Granada, and *P. auratus* *Girard*, from Chili.

SPELERPES BELLII Gray.

"*Oedipus platydactylus* Tschudi." Baird, Journal Acad. Nat. Sci., Philada. 2d ser. vol. i. pp. 282-286, January, 1850. (Not of Tschudi.)

Spelerpes Bellii Gray, Catalogue Amphibia in Brit. Mus., p. 46, June, 1850.

Bolitoglossa Mexicana Duméril, (pars), Erp. Gen., vol. ix., p. 93, 1854. (Exclus. all the synonymy). Pl. 105, fig. 2.

"*Salamandra togata* Valenciennes, Mus. Paris." Duméril.

Specimens of this fine Salamander are now in possession of the Academy and of the Smithsonian Institute, which were brought from Jalapa, Mexico, by the well known collector, Sr. De Oca. Though it is a species apparently well known in European collections, considerable confusion exists with regard to the synonymy. This it is the object of the present article to set right as far as the means at the author's disposal may enable him to accomplish it.

The first published notice of this species is probably that of Professor S. F. Baird, in his valuable "Revision of the North American Tailed Batrachia," as above cited. He supposed it to be the *Oedipus platydactylus* of Tschudi, as it appears to me incorrectly, though the meagre diagnosis of that author renders any identification sufficiently hazardous. The name at the head of this article is that of Dr. J. E. Gray, whose description in the "Catalogue of Batrachia Gradientia in the British Museum," no doubt, applies to this species. It is the first name published with an appropriate specific diagnosis, and therefore is adopted here. Dr. Gray was, however, not aware that to the present species belongs the synonymy and notice of the structure of the toes, quoted from Baird, under the genus *Oedipus* of the "Catalogue." That this is the case, I have upon the excellent authority of Prof. Baird himself, who states that the appearance of "sucker-like discs upon the extremities of the toes, similar to those of *Hyla*," resulted from the contraction of the integuments about the proximal phalanges, in an old specimen, thus giving prominence to the small tubercle upon the inferior surface of the extremity of each toe. The *Oedipus* of Gray appears to be the *Oedipus* of Tschudi, but I have seen neither specimens nor descriptions which correspond with that of his *O. variegatus*.

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The best description of the *Spelerpes Bellii* is the first part of that above cited, from the *Erpetologie Générale*, and which should be regarded as indicating the *Bolitoglossa Mexicana* of the author of that work, although the same species is figured as a variety of another, described in the text in a supplement to the description of the first. The animal described in the supplement, is there regarded, it would appear, correctly, as the *Oedipus platydactylus* of Tschudi, and is not only specifically, but probably generically distinct from *Spelerpes Bellii*.

In size this species is only exceeded by some of the *Amblystomata* of the Mississippi Valley: one of our specimens is at least eight inches long. The tail, whose length is about equal to that of the head and body, is compressed toward the tip, but cylindrical and greatly swollen at the base, as in *Hemidactylum scutatum*, though in a greater degree. It is encircled by grooves similar to those of the flanks. The toes are short, broad, depressed, very distinct, and with scarcely a trace of connecting membrane at the base, certainly much less in our specimens than is represented in the fig. in *Erp. Générale*. The extremity of each is provided beneath with a knob or callosity. The palatine teeth extend from the very exterior point of the posterior border of the palatine bones, and from two nearly transverse arched series, which meet near the centre of the suture with the sphenoid bone. This resembles the arrangement in the *Geotriton fuscus* and the *Heredia* of Girard, rather than the ordinary *Spelerpes*, where the series are shorter, more oblique, and not in contact. The patches of sphenoid teeth are more distinct and elongated than in the species of *Plethodon*, but less so than in *Pseudotriton ruber*. A considerable space separates these from the posterior angle of the palatine series.

The fresh specimens of this species that I have seen are of a lead color, other specimens are much darker, but whether this is a result of long preservation in spirits I am not able to state. Upon the back is a double row of obliquely pyriform spots of an orange red in life, but which became yellowish white in spirits. These become confluent upon the neck, and, according to authors, are sometimes preceded by a pair of large spots of the same color upon the occiput. Belly immaculate.

GEOTRITON CARBONARIUS Cope.

? "*Salamandra platydactyla* Cuvier, Mus. Paris."

? *Oedipus platydactylus* Tschudi, *Classif. der Batrachier*, p. 93, 1838.

Bolitoglossa Mexicana Dumeril, *Erp. Gén.*, vol ix. p. 93, 1854. (Specimens from Vera Paz.) Pl. 105, fig. 1.

There can be little doubt that a salamander exhibiting a structure of the feet similar to that of the present species, furnished the characters of Tschudi's genus *Oedipus*, and also that of Dr. Gray. What *species* this reptile pertained to, cannot readily be ascertained, as no description of it appears to have been published, unless it be identical with the *O. variegatus* of the latter author. In this case it is not probably the same as that figured in the *Erpetologie Générale*, and of which two specimens are before me.

It is evident that the *Oedipus* of Tschudi cannot be retained, as founded upon an undescribed species,—even were it sufficiently distinct. That it is not distinct from the *Geotriton* of Bonaparte, is very probable, although it is contrary to analogy to find a genus of reptiles in so southern a latitude as that of Jalapa identical upon another hemisphere. With the *Geotriton fuscus* *Bp.* before me, I find the following characters common to it and the species which is the subject of this article. Supra and postorbital bony arches absent. Palatine teeth in two transverse regularly arched series almost in contact medially. Sphenoid teeth numerous, in two oval patches upon the sphenoid bone, separated by an interval from the palatines. Tongue boletoid. Parotids none. Tail cylindrical. Digits 4—5, slender, united by a broad membrane.

The broad palmation of the fingers and toes distinguishes the genus from
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Spelerpes. In the latter genus and its allies, the toes are distinct at all seasons of the year, differing in this respect from the Tritons.

Upon comparing the dorsal vertebræ of the *Geotriton fuscus* and *carbonarius*, little material difference is apparent. Those of the former are not so stout, and have the external ridge of the anterior zygapophysis more compressed and elevated. In both, there is a single longitudinal spinous process, but little elevated, obsolete upon the posterior part of the vertebra.

The largest specimen of *Geotriton carbonarius* measured three inches from the end of the muzzle to the vent: from the latter point to the end of the tail is three in. three lines. The ground color above and below is black: the back is marked with a broad, irregularly defined brownish yellow band, which extends upon the base of the tail, and bifurcates upon the neck and occiput, leaving a deltoid space of the ground color. This dorsal band is more uniform in a younger specimen. The soles of the feet are pale. There are ten teeth in each of the palatine series, and about three hundred and thirty in the confluent sphenoidal patches. These patches are distinct anteriorly and posteriorly. In *Spelerpes Bellii*, they are entirely distinct, and more clavate in outline.

Catalogue of Birds from the Island of St. Thomas, West Indies, collected and presented to the Academy of Natural Sciences by Mr. Robert Swift. With Notes,

BY JOHN CASSIN.

1. *TINNUNCULUS SPARVERIUS*, (Linnaeus).

Falco sparverius, Linn. Syst. Nat. i. p. 128, (1766).

Falco dominicensis, Gm. Syst. Nat. i. p. 285, (1788).

Wilson's Am. Orn. ii. pl. 16, iv. pl. 32. Aud. B. of Am. pl. 42, oct. ed. i. pl. 22.

In a very fine series of specimens in Mr. Swift's collection, I find some characters which are slight, but may be constant, and possibly indicate specific distinctness from the common bird of the United States. The wing coverts have much more numerous spots of black, and the outer tail feather has its inner web always partly, and frequently entirely rufous, the same color as the other tail feathers, and its outer web white, with segments or semi-circular spots of black, having for their bases the shaft of the feather, and all the feathers of the tail are more or less edged and banded with black on their upper surface. These characters are not usually seen in *F. sparverius* of the United States, but are present in every specimen in the present series, and seem especially to characterize the adult plumage. The colors also are rather brighter than in our northern species.

Seven specimens are in this collection, of which four are in adult plumage. In all of them, of whatever age, there is a large rufous space on the crown, and the size is very nearly the same as that of specimens from Pennsylvania, or perhaps slightly smaller. The plumage of the present specimens does not correspond with that of either of the proposed distinct species of authors.

2. *GYMNOGLAUX NUDIPES*, (Daudin).

Strix nudipes, Daud. Traite d'Orn. ii. p. 199, (1800).

Scalater's Ibis, 1859, pl. 1. Vieill. Ois. Am. Sept. pl. 16.

Two specimens in Mr. Swift's collection are much as represented in Mr. Newton's excellent plate, and as described in his very valuable paper on the Birds of St. Croix, in Scalater's Ibis, as cited above. A wide superciliary band of white is, however, more conspicuous in both of the present specimens, than as represented in the plate, and there are a few other not important differences. The *tarsus* is bare for about its lower two-thirds, in this singular species, and covered with very small circular or hexagonal scales. Bill and claws light greenish-yellow, which is probably also the color of the feet in the adult bird.